

CASE SUMMARY

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ASE

ARMOUR SWIFT-ECKRICH (ASE) CONSUMER PRODUCTS
Mason City, Iowa (Cerro Gordo County)

INTERN: Mandy Sapp
MAJOR: Civil Engineering
SCHOOL: University of Iowa

The Company

Armour Swift-Eckrich (ASE) Deli Food Services, owned by ConAgra, is a \$24 billion international diversified food company with 80,000 employees worldwide.

ASE Consumer Products Mason City produces 50 million pounds of finished meat products annually, while another 21 million pounds are attributed to work in process. These include smoked hams, smoked bacon slabs, franks and semi-dry sausage.

Project Background

The purpose of the Pollution Prevention Intern project was to develop a strategy for water conservation and Biochemical Oxygen Demand (BOD) reduction at Armour Swift-Eckrich Consumer Products.

Incentives to Change

Water conservation opportunities could save ASE over 6 million gallons each year. BOD essentially measures the concentration of wastewater with food product. If the wastewater is highly concentrated, large amounts of oxygen in the water will be consumed, which can adversely affect the environment. The municipality assesses a surcharge to fund more extensive treatment if wastewater inflow contains in excess of 300mg/L of BOD.

Results

Upper management gave approval for worker incentives and the development of an "efficiency team." BOD and water conservation goals were established and communicated to all employees via presentations, handouts, and posters.

The intern mapped the plant's water pipe network and created a flow diagram showing water usage points and reduction opportunities. In addition, the following water conservation opportunities were analyzed, complete with a cost savings analysis for each process.

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Water Conservation Opportunities

- ◆ Water Cooler
- ◆ Shrink Tunnel
- ◆ Tree Wash Restoration
- ◆ Temperature Controlled Modulating Valve
- ◆ Water Recycling
- ◆ Oven Showers
- ◆ Cleanup Crew Nozzles

Twenty percent BOD reduction (in pounds) was identified as the goal to be reached by December 2001. The intern proposed twelve P² opportunities for this business to assist in achieving the BOD reduction goal. Clean up procedures were audited and presentations were given to educate employees on cost savings associated with BOD reduction efforts. It was determined that over \$245,000 of lost product and over \$7,000 in surcharges can be saved if the 20% reduction goal is met this year.

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